

REMARKS

In the Office Action, dated July 31, 2003, the Examiner has rejected claims 8, 9, and 13-22 pending in the present application. By the present amendment, applicant has cancelled claims 13 and 18, and amended claims 8 and 9. After the present amendment, claims 8, 9, 14-17 and 19-22 are pending in the present application. Reconsideration and allowance of pending claims 8, 9, 14-17 and 19-22 in view of the amendments and the following remarks are respectfully requested.

A. Rejection of Claims 8, 9, 13, 17, 18 and 22 under 35 U.S.C. § 102(e)

The Examiner has rejected claims 8, 9, 13, 17, 18 and 22 under 35 U.S.C. § 102(e), as being anticipated by Tsukiji (USPN 6,429,072) (“Tsukiji”).

Applicant respectfully submits that Tsukiji fails to disclose, teach or suggest the following element of independent claims 8 and 9, as amended: “a gate insulating layer situated over an entire length of said third region and substantially less than an entire length of each of said first region and said second region, the gate insulating layer having a first thickness situated over said first region and said second region, and a second thickness situated over said third region, said first thickness being greater than said second thickness, wherein said first thickness is substantially uniform and said second thickness is substantially uniform.” As shown in FIG. 2B of the present application, the tunnel oxide layer 50 overlaps only a portion of source region 46 and drain region 48. (See, page 6, lines 7-10.)

In sharp contrast, as shown in FIG. 5G of Tsukiji, “insulation films 122 are united with the gate insulation with the gate insulate film 102, wherein the insulation films 122 extend on inside walls and top surfaces of the source side and drain side interconnections 104a and 105a.” (Col. 6, lines 44-47) (emphasis added.)

Applicant respectfully submits that Tsukiji, in fact, teaches away from the invention of claims 8 and 9, wherein the configuration of the gate insulating layer advantageously reduces the potential for oxide breakdown and/or current leakage in the first and second regions, i.e. the source and drain regions. In Tsukiji, on other hand, the insulation films 122 extend the entire top surfaces of the source side and drain side interconnections 104a and 105a. As a result, the potential for oxide breakdown and current leakage in the source and drain regions of Tsukiji increases, due to, for example, the capacitance created by the overlap of insulation films 122 on the interconnections 104a and 105a, which run the entire length of drain and source regions 104 and 105. Further, because the insulation films 122 run the entire length of the drain and source regions 104 and 105 (with conductive interconnections 104a and 105a therebetween), more oxide breakdown and current leakage will occur in the drain and source regions 104 and 105 of Tsukiji.

However, advantageously, in claims 8 and 9, as shown in FIG. 2B, the gate insulating layer 50 is situated over substantially less than an entire length of each of said first region and said second region, i.e. the source region 46 and the drain region 48,

which reduces the potential for oxide breakdown and/or current leakage in the first and second regions, i.e. the source and drain regions.

Accordingly, it is respectfully submitted that independent claims 8 and 9, as amended, and their respective dependent claims 13, 17 and 22, are patentably distinguishable over Tsukiji and should be allowed.

B. Rejection of Claims 14-16 and 19-21 under 35 U.S.C. § 103(a)

The Examiner has rejected claims 14-16 and 19-21 under 35 U.S.C. § 103(a), as being unpatentable over Tsukiji in view of Libera et al.

Applicant respectfully submits that claims 14-16 depend from claim 8 and claims 19-21 depend from claim 9, and thus, claims 14-16 and 19-21 should be allowed at least for the same reasons discussed above in conjunction with patentability of claims 8 and 9, as amended.

C. Conclusion

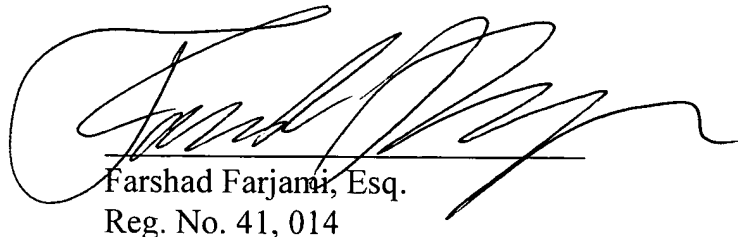
Based on the foregoing reasons, an early allowance of claims 8, 9, 14-17 and 19-22 pending in the present application is respectfully requested.

Respectfully Submitted,
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